

EXPLANATION OF THE FIGURES.

FIG. 1. *Side view.*

FIG. 2. *View from beneath; abdomen opened.*

a. Liver,

b. Alimentary canal,

c. Superior ovary,

d. Inferior ovary.

FIG. 3. *Bones of the cheek and jaw.*

a. Jugal,

b. Tympanal,

c. Temporal,

d. Maxillary,

e. Intermaxillary.

FIG. 4. *Outline as seen from above.*

The slender body which is seen beneath the throat in Fig. 1, extending in a curve from the symphysis of the lower jaw to the tongue, probably did not exist in that form during life; neither was the tongue separated from the jaw, as shown in the figure. The integuments and parts forming the throat have been lacerated, and their original appearance we cannot now determine.

ART. VII. — *On the PSELAPHIDÆ of the United States.* By

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THE interesting little Coleoptera which are the subjects of the following essay, from the peculiarities of their structure, have received a more than ordinary degree of attention from scientific men. Still it is obvious, from the small size of the species, (none exceeding two lines,) and the rarity of their occurrence, that our knowledge respecting them may yet be very much increased. The slight interest which the science of Entomology has awakened in this country, and the search made after large and conspicuous species, rather than those which from peculiarities of form or habit might be expected to give more information with regard to the true system of organic life, have caused many very curious objects to remain unknown.

It affords me much satisfaction, through the kind liberality of my friends, and the great facilities enjoyed for extensive exploration in distant portions of our country, to remedy in part this defect, at least in the little group herein treated of. Having made them special objects of search for the last two or three years, I have been most abundantly repaid by the discovery of many new forms. As will be seen in the sequel, no less than seven genera are added to those already so well defined in Aubé's beautiful essay, (*Annales de la Soc. Ent. de France*, 2d ser., tom. 2.) New species have also been discovered of five other genera, not as yet published as inhabiting our continent. So successful has been the limited exploration, that our *Pselaphidæ* are already nearly as numerous as those in Europe, and embrace a greater number of distinct genera. For the benefit of the American student to whom the memoirs of Aubé may not be readily accessible, I have reproduced descriptions of all his species which remain unknown to me, while those in my possession have been carefully re-described, for the purpose of bringing out more prominently the characters in which they differ from species since discovered. Of the generic diagnoses I will only say, that they too, are drawn exclusively from American species; the European student must not therefore be surprised if minute differences should be found between the descriptions herein given, and those already published from the European analogues.¹ In very few of the genera of *Pselaphidæ* are the minute relations of the cephalic organs preserved without variation through an entire genus; and thus the palpi of the *Tyrus* I have described, will be seen to differ appreciably from Aubé's description. I would also invite the attention of foreign observers to the fact, that the antennæ of the genus *Bry-*

¹ Having had no opportunity of observing the European species of such genera, I prefer taking this course, allowing my descriptions to differ slightly from those heretofore published, to having the responsibility of ordering any alteration in the former descriptions, or so modifying them as to include the species of both continents. Since the differences are now pointed out in these instances, it will be easy for any one by simple inspection of the foreign species, to perceive where these alterations must be made.

axis are provided with only ten joints, when the medial thoracic fovea is larger than the lateral ones, or when these last are entirely wanting. I have not yet succeeded in finding which joint becomes obsolete, but it would be very interesting to follow this up by the aid of foreign species, and to ascertain whether other forms than those specified are also embraced in the division with ten-jointed antennæ. The genus *Batrisus* having been very much increased, it became necessary to search for some means of dividing it into groups. The structure of the front has enabled me to do this in a tolerably natural manner, and thus to point out more clearly the specific characters belonging to each; and the peculiar sexual variations established under each group, will be sufficient proof that I have not unnecessarily multiplied the species of this heretofore limited genus. The characters used by me in dividing this genus having unfortunately been passed over in a negligent manner by former writers, I am still uncertain about the position of the foreign species, and of the relation which they bear to ours: I have, however, for the sake of uniformity endeavored to intercalate them as well as their descriptions would permit me.

The parallelism of the productions of the two continents is seldom more beautifully displayed than in the present group. There is now but a single European genus (*Bythinus*,) which has not its representative or its analogue in this country. As will be seen by the following table, this correspondence extends in a remarkable manner through the species of which the genera are composed, so that almost every species of the genera common to the two continents has its exact equivalent: moreover in those genera, which, from possessing less power of variation, consist only of single species, the parallelism of characters is still kept up to a most surprising extent; so much so, that if we were to leave out all strictly generic characters, the two analogues would be represented by a single diagnosis.

In addition to these equivalents and analogues we have still remaining many genera and species without representa-

tives in Europe; a fact which leads me to infer that the total number of species of *Pselaphidæ* in North America, notwithstanding the rarity of the individuals, is larger than in the corresponding part of the other continent.¹

TABLE OF CORRESPONDING GENERA AND SPECIES.

<i>Europe.</i>	<i>United States.</i>
Batrisus, 4 species.	Batrisus, 17 species. (18 ?)
Chennium bituberculatum.	Ceophyllus monilis.
	Cedius, 2 species.
Faronus Lafertei.	Faronus? Tolulæ.
Ctenistes, 2 species.	Ctenistes, 2 species.
	Tmesiphorus, 2 species.
Tyrus mucronatus.	Tyrus compar.
	Hamotus humeralis.
Pselaphus, 2 species.	Pselaphus, 2 species.
Tychus, 4 species.	Tychus, 2 species.
	Arthmius globicollis.
Bryaxis sanguinea.	Bryaxis conjuncta.
fossulata.	dentata.
three others.	
Lefebvrii.	velutina.
hæmatica.	hæmatica.
Helferi, }	abdominalis.
Schüppelii. }	puncticollis.
juncorum.	
Chevrieri.	rubicunda.
opuntiaë.	propinqua.
impressa.	lunifer.
antennata.	tomentosa.
	3 sp. (antennis, 10-artic- ulatis.)
Bythinus, 13 species.	Eupsenius glaber.
	Rhexius insculptus.
Euplectus, 17 species.	Euplectus, 10 species.
Claviger, 3 species.	Adranes cæcus.

¹ This paragraph was written before undertaking a recent journey to the upper part of Georgia, and the result of that trip was such as to show abundantly the truth of the inference; and to prove that by a careful analysis of even limited material, we may be able to see the general operation of nature's laws, even before the results of these laws become evident; and thus to predict, as it were, the general nature of the distribution of any particular group of organized beings. During a stay of four weeks in upper Georgia, eighteen new *Pselaphidæ* were obtained.

It will be seen that notwithstanding the difference in the structure of the palpi, I have placed *Ceophyllus* as the American analogue of *Chennium*. The form of the body, and in fact the external characters are exactly similar in the two genera. And on account of the variation above-mentioned, of the cephalic organs, and especially of the palpi, (as noticed in *Tychus* and *Ctenistes*,) it is obvious that a similarity of structure in these organs is not necessary to a strong affinity between two species; and I have in this instance considered it of secondary importance, as compared with the general habit, and the very peculiar structure of the antennæ.

It will be observed too, in comparing a number of species of any genus of *Pselaphidæ*, that however much the relative proportions of the joints of the antennæ vary, there is still a particular appearance, depending perhaps on the method of articulation, which enables a practised eye at once to recognize the antennæ of each genus. On this account I have been led to consider in this group the structure of the antennæ as of fundamental importance in arriving at a philosophical arrangement of the genera in their mutual relations.

The differences already alluded to are, however, so slight as scarcely to be appreciated in a description. Not so with the manner of insertion of these organs; here we find great and important variations: many having the antennæ inserted under the front, as in many *Brachelytra*; while others have the front porrected and elevated into a narrow tubercle, upon or under which the antennæ are inserted.

Using this principle of division, the genera fall into two very natural series, which to some extent repeat each other.¹

¹ Another reason why I consider the position of the antennæ as of primary importance in the division of this group, rather than the number of the articulations of the antennæ, and the tarsal claws, which are the bases of Aubé's tables, is that the character selected by me is entirely independent of particular stages of development. After the light which has been thrown by embryological researches, on the true signification of allied animals, scarcely any naturalist will be inclined to deny the existence of *series* in nature, which starting from a common origin, of low organization, can be traced in different directions to very diverse forms. The particular members of each series therefore stand in a linear relation to each other, and mark

Antennæ approximatæ.

a. Tarsi didactyli.

Chennium.

Ceophyllus.

Cedius.

Tmesiphorus.

Ctenistes.

Tyrus.

Phamius.

b. Tarsi sesquidactyli.

Metopias.

c. Tarsi monodactyli.

Pselaphus.

Tychus.

Claviger.

Adranes.

Articerus. (?)

Antennæ distantes.

a. Tarsi didactyli.

Hamotus.

Faronus.

b. Tarsi sesquidactyli.

Batrisus.

c. Tarsi monodactyli.

Bryaxis.

Eupsenius.

Arthmius.

Bythinus.

Rhexius.

Euplectus.

the progressive material evolution of the intellectual idea, previously existing in the mind of the Creator, until the perfection of this idea is attained in the most highly organized member of each group. Gradually, too, as the primary idea is evolved, others seem to be brought out into greater prominence; so that the intermediate forms of a small group may be in direct relation with the lowest forms of a group standing higher in the same series. It is therefore obvious that if any group be defined by a character variable in the development of similar animals, that group is *ipso facto* not natural; because it indicates not a series, but a stage of development. However, it may be itself a particular stage of development in a group of higher value; but in this case the definition of the entire series will also be added to the definition of the group, and the latter will not be a distinctly limited collection of forms, but only a transitus from lower to higher species. The *primary principle* of division of any natural group *must* therefore be independent of any development which takes place after the animal has assumed a definite, peculiar, recognizable form. Now here Aubé's principles fail, because the number of the articulations of the antennæ and the tarsal claws varies from the larva to the imago, and therefore indicates stages of development. Hence if the group were compounded of smaller series, manifesting affinities in different directions, his arrangement would not render them evident, and they would remain rather matters of inference than demonstration. It is of course very difficult to detect these characters which are independent of development, because they are usually obscured by physiological developments, required by the habits of the animal, and the part it has to play in the economy of nature. But we must remember that the progress from artificial to natural classification has always been slow, and that we are *compelled* by the limitation of our own intellects, to make use of the former in order to attain the latter. Again, after having once discovered the true principle of definition, it is only necessary to make use of it in cases of difficulty, (as for instance, in the decision of the articulate nature of *Balanus*, the decomposition of the *Infusoria*, &c.) In all ordinary inquiries we associate with the primary idea such characters as are of less importance but more obvious, and which depend on the beautiful co-relation of parts evident throughout all nature.

The first group (with the front elevated,) is the normal form, and shows an unbroken series; *Metopias*, with its immarginate abdomen, being the inosculating point with *Batrisus*; which by slight variations in the form of its front, shows its tendency towards the typical stem.

The second group requires more careful analysis. The curious sculpture on the thorax of many of its members is not found in the first group, and should lead us to suspect that it may be the connecting chain with other forms. The embryonic character is plainly seen in the elongate form, and six-articulated abdomen of *Euplectus*; while in the other series, *Adranes*, though of very low organization, preserves the typical *Pselaphus* form. Of the two genera in this second series, *Hamotus* is plainly a *Bryaxis* form, while *Faronus* is a *Euplectus* form. Accordingly the genera must be thus arranged.

Scydmanoid genera.

Hamotus.

Bryaxis.

Eupsenius.

Arthmius.

Bythinus.

B.

Oxyteloid genera.

Batrisus.

Rhexius.

"

A.

Euplectus.

Faronus.

The left hand branch being almost typical *Pselaphi*, with globular thoraces, scarcely sculptured, and leading very obviously to the *Scydmani*; the right-hand branch being altogether abnormal, *Batrisus* being the only genus tending at all to the typical chain. The six-jointed abdomen and elongate form of *Euplectus*, proves that the lower forms of this line must possess a multiarticulate abdomen, with a linear body. They must therefore be sought for among the *Brachelytra*. Now the three-jointed tarsi, (which must of course be preserved through the lower forms,) occur only in Erichson's division *Staphylini Oxytelini*, where we also find sculptured thoraces agreeing with those of our *Pselaphidæ*.

Looking at the contents of this family, as left by Erichson, we see much heterogeneous material; *Megalops* and *Osorus* differ at once by their corneous ligula; the latter also by the insertion of its antennæ into a very deep cavity. The remainder divides itself naturally into two groups: *Oxy. genuini*, (Er.) tarsi 3-articulati, palpi articulo ultimo subulato, and *Oxy. coprophilini*, (Er.) tarsi 5-articulati, palpi filiformes. The first of these contains the forms after which we were looking; the second being the diverging line to the *Omalini*. Comparing now the *Oxytelini genuini* with *Euplectus*, we perceive a most close agreement in structure as well as appearance. The antennæ, feet, and sutures of the thoracic segments are all similarly situated, while the relations between the parts of the mouth are identical. In the genus *Faronus*, (although furnished with two claws,) we perceive other *Oxyteloid* characters, in the shortening of the second tarsal joint, and the structure of the abdomen.

We have now got a large group containing *Pselaphi*, *Scydmani*, and *Oxytelini*, which seem from the affinities just mentioned, to be very closely related. To circumscribe this group, and to discover its higher forms, (if any exist,) is a work of much labor, and could be undertaken only after a careful study of all the groups of *Coleoptera*, and a knowledge of their larvæ. Although much labor has been given to the latter subject, our information is still too imperfect for general systematic inquiries. Since the *Coleoptera* have heretofore been studied for the purpose of being arranged into groups rather than series, many characters used in defining these groups must be rejected, when we attempt to find the relations of these to each other. (*Vide* note on page 68.) In fact, a too strict adherence to characters indicating states of development, has already led to the formation of two very heterogeneous tribes, the *Brachelytra* and *Heteromera*; the latter containing many embryonic forms, known by their softness, and imperfect structure, while the former is a general receptacle for all larval forms with a corneous abdo-

men. The first effort to decompose this tribe has herein been made by joining the *Oxytelini* and *Omalini* with the *Pselaphi*; and in future memoirs, I hope to point out how some other portions of the *Brachelytra* may be disposed of.

The results already obtained by systematists in the formation of these two heterogeneous groups, with such opposite characters, and some considerations derived from the larvæ, will point out the proper course to be taken in these investigations.

On looking at a number of larvæ of *Coleoptera*, we at once perceive great differences in their tegumentary system. Some are cylindrical and soft, while others are more or less flattened, and protected by corneous scuta. Accordingly, there will be some embryonic groups having a soft consistence, and these will belong to the series with soft larvæ; other embryonic forms, derived from corneous larvæ, must have likewise a hard covering, and these will retain the free multi-articulate abdomen, and will in fact be *Brachelytra*.

As the corneous tegument of some larvæ of *Elateridæ* and *Tenebrionidæ* is of a different structure, since it is not arranged in a scutate manner, but is a hardening merely of the membranous skin seen in other larvæ of the same tribes, we must by no means infer, that the lower members of these groups are *Brachelytrous*. In such cases, the hardening being merely a further development of the usual structure, will merely serve to point out the higher members of the groups in which it occurs.

AUTHORS CITED BELOW.

SAY, in Journ. Academy of Natural Sciences of Philadelphia, Vol. IV. 1824.

ERICHSON, Die Käfer der Mark-Brandenburg. Berlin, 1837.

AUBÉ, in Guerin's Magazin de Zoölogie. 1833.

AUBÉ, in Annales de la Société Entomologique de France, 2d séries, tom. II. 1844.

CEOPHYLLUS.

Antennæ approximatae, 11-articulatae, moniliatae, sub fronte elevata in fovea insertae.

Palpi maxillares 4-articulati, articulis 3^o et 4^o clavam transversam formantibus. Mentum basi angustatum.

Tarsi unguiculis binis æqualibus.

Corpus antrorsum sensim angustatum: caput elongatum, parallelum, fronte inter antennis valde elevata, fovea utrinque laterali profunda, ad antennarum insertionem; antennæ articulis omnibus globosis, 1^{mo} paulo oblongo; labrum transversum, brevissimum; mentum versus basin sensim paulo angustatum: palpi maxillares, 4-articulati, articulo 2^{do} longissimo, fusiformi basi tenuissimo, 3^o pedicello tenuissimo, ad apicem subito extrorsum valde dilatato, antice paulo concavo; 4^o transverso, angusto, parte articuli 3^o dilatata æquante, et cum ea clavam lamellatam formante. Elytra planiuscula, apice triangulariter parum declivia; abdomen anguste marginatum, antice planiusculum. Pedes elongati, trochanteres antici spina acuta armati; femora antica subtus acute 1-spinosa; tarsi articulo 2^{do} et 3^o æqualibus, hoc unguiculis binis æqualibus.

Nomen a *κέω*, *findo*, et *φύλλον*, *folium*, derivatum.

1. *C. monilis. Cinnamomeus, subtiliter punctulatus, breviter dense pubescens, fronte elevata, medio foveata, thorace linea arcuata basali, elytris stria profunda ad medium abbreviata. Long. .11.*

Specimen unicum ad fluminis St. Clair, (Michigan,) ripas, sub cortice *Tiliæ* Americanæ, mense Augusto, inveni.

Cinnamomeus, dense, brevissime pubescens. Caput utrinque supra oculos concavum, his minutis, rotundatis; fronte elevata antice subacuta, pone antennis fovea oblonga impressa; minus dense subtiliter punctatum: antennæ dimidio corporis longiores, articulis globosis, 9 et 10 præcedentibus paulo minoribus, ultimo paulo longiore, ovali. Thorax latitudine sesqui longior,

antice parum angustior, utrinque fere truncatus, lateribus paulo rotundatus, ante apicem obsolete transversim impressus, lineaque arcuata basali tenui insculptus; subtilissime punctulatus, margine antica lævi. Elytra thorace duplo latiora, antrorsum sensim angustata, lateribus fere rectis, apice recte truncata, subtilissime punctulata, stria profunda dorsali ad medium abbreviata. Abdomen subtilissime punctulatum.

CEDIUS.

Antennæ approximatae, 11-articulatae sensim incrassatae, ad marginem frontis elevatae subtus insertae.

Palpi maxillares 4-articulatae, art. 3^{tio} cuneiformi extus acuto, 4^{to} majore convexo; mentum quadratum.

Tarsi unguiculis binis æqualibus.

Corpus antrorsum sensim angustatum, caput subelongatum, lateribus antice parallelum, pone oculos angustatum, fronte inter oculos valde elevata, utrinque ad antennarum insertionem excavata, subtus oculos spina acuta armatum, oculi parvi rotundati: antennæ articulis 2-7 cylindricis subæqualibus, 1mo majore, quatuor ultimis sensim majoribus: mentum quadratum: palpi maxillares 4-articulati, articulo 2^{ndo} longissimo, valde curvato, versus apicem paulo clavato: 3^{tio} transverso, cuneiformi, intus acuto; 4^{to} majore, ovali convexo, appendice brevissima terminali instructo. Elytra convexiuscula. Abdomen marginatum, convexiusculum. Pedes elongati, trochanteres antici spina longa armati, femora antica subtus acute longeque spinosa; tarsorum articulo 3^{tio} quam 2^{ndo} paulo longiore, unguiculis binis æqualibus.

Nomen a κήδειος, *carus*.

1. C. Ziegleri. *Fusco-rufus, densius pubescens, thorace linea basali arcuata, elytris densius punctulatis, stria profunda parum abbreviata, pedibus anticis basi 3-spinosis.* Long. .11.

Habitat in Pennsylvania sub cortice arborum; a Dom. Ziegler, cui, entomologo fideli, grato animo, inscriptus est, benevole datus.

Fusco-rufus, parum nitidus, pube densiore fulva vestitus. Caput parcius punctatum, supra oculos concavum, his parvis rotundatis prominulis: fronte elevata, antice acuta, inter antennis profunde valde excavata, inter oculos transversim impressa: antennæ capite cum thorace paulo longiores, articulis 4 ultimis sensim crassioribus, ultimo præcedentes duos æquante, ovali: 8^{vo} subtus acute parum producto. Thorax convexus, latitudine non longior, antice paulo latior, rotundatus, basi truncatus, ante basin linea arcuata insculptus, parcius subtiliter punctulatus. Elytra thorace plus sesqui latiora convexiuscula, lateribus rotundata, antrorsum angustata, subtiliter densius punctulata, stria dorsali profunda, ad apicem parum abbreviata. Abdomen sat dense subtiliter punctatum, apice acutiusculum. Trochanteres antici acute longeque spinosi, femora antica subtus longe bispinosa.

2. *C. spinosus*. *Rufus pubescens, thorace linea basali arcuata, elytris parcius punctulatis, stria dorsali ad medium abbreviata, pedibus anticis basi bispinosis.* Long. .07.

Habitat in Carolina Australi, Columbiae. Dom. Zimmerman.

Forma præcedentis; quadruplo minor, minus dense pubescens. Caput idem, antennæ similes, apice autem paulo magis incrassatæ. Thorax impunctatus, linea arcuata basali insculptus. Elytra convexiora, parcius punctulata, stria dorsali ad medium abbreviata. Abdomen subtiliter punctulatum. Trochanteres antici spiniferi. Femora antica basi spina longa armata.

TMESIPHORUS.

Antennæ approximatae, 11-articulatae, sensim clavatae, ad frontis elevatae marginem subtus insertae.

Palpi maxillares 4-articulati, articulo 2^{ndo} et 3^{tio} extus appendiculatis, 4^{to} triangulari emarginato. Mentum quadratum.

Tarsi articulo 3^{tio} quam 2^{ndo} sesqui longiore, unguiculis binis æqualibus.

Corpus subelongatum, antrorsum angustatum, minus convexum. Caput triangulare, fronte inter antennis elevata, utrinque ad antennarum insertionem excavata; subtus oculos spinis duabus brevibus, quarum anterior acuta est; oculis transversis convexis, prominulis; antennæ sensim clavatæ, ad marginem frontis elevatae subius insertæ, articulo 1^{mo} majore oblongo, 2–8 subæqualibus, gradatim paulo brevioribus, 3 ultimis sensim majoribus: mentum quadratum: palpi maxillares elongati, articulo 2^{do} longo, valde curvato, basi tenui, apice modice clavato, appendice setiformi externa ante apicem; 3^{tio} latitudine duplo longiore, subfusiformi, appendice externa setiformi ad medium; 4^{to} dilatato, triangulari, apice oblique emarginato, angulo interno longiore, appendice brevissima instructo. Elytra planiuscula, margine humerali acuta; abdomen late marginatum. Pedes elongati, tarsorum articulo 3^{tio} quam 2^{do} sesqui longiore, unguiculis 2 subæqualibus, interno vix conspicue tenuiore.

Genus certe Ctenisti valde affine, at palporum structura tarsorumque articulo 2^{do} brevioris distinctum haberi debet.

Nomen a *τέμνω* et *φέρω*.

1. *T. carinatus*. *Fusco-rufus, pubescens, capite inæquali thoraceque dense punctatis, elytris punctatis, carina ad medium abbreviata, abdomine punctulato 3-carinato, carina media integra*. Long. .08–.10.

Habitat sub cortice pinuum et quercuum, minus frequens. Ohio, Alabama, Pennsylvania. Abundat in Georgia.

Pselaphus carinatus Say, J. Ac. N. Sc. 4, 97.

Ctenistes? *carinatus*, Aubé An. Ent. 2, 100.

Fusco-rufus, pube depressa fulva parce vestitus; caput dense punctatum, fronte elevata excavata, occipite carinato, bifoveato: antennæ articulis 2–8 cylindricis sensim paulo brevioribus, 9 et 10 majoribus, æqualibus, 11^{mo} adhuc majore et crassiore ovali, apice rotundato. Thorax capite non latior, latitudine vix longior, antice rotundatus paulo latior, basi truncatus, convexus, confertim punctatus, fovea parva oblonga basali

notatus. Elytra thorace fere duplo latiora, antrorsum angustata, basi profunde impressa, sat dense minus subtiliter punctata, costa ad medium abbreviata distincta, quæ stria externe definita est: costula altera obsoleta externa apicali versus marginem humeralem elevatam tendit. Abdomen punctulatum, carina media acuta, ad segmentum 4^{mum} extendente; segmento primo carina altera utrinque tenui ornato.

Mas antennarum articulo 10^{mo} ad apicem intus parum producto, 11^{mo} inferne versus basin paulo sinuato-emarginato, dentulo minimo armato, carinisque abdominis externis in segmentum secundum prolongatis differt.

2. *T. costalis*. *Nigro-piceus, nitidus, parum pubescens, capite inæquali, thoraceque punctatis, elytris lævibus, costa ad medium abbreviata, abdomine lævissimo, antice bicarinato*. Long. .11.

Specimen unicum in Pennsylvania mense Aprilo sub cortice inventum, a Dom. Haldeman amice datum.

Præcedente major, parcius pubescens, nigro-piceus: caput dense punctatum, fronte elevata profunde longitudinaliter impressa, fere fissa: occipite obsolete trifoveato, fovea intermedia posteriore oblonga. Antennæ articulis 2-8 paulo rotundatis, sensim parum brevioribus, 9 et 10 majoribus æqualibus, 11^{mo} majore, sub-securiformi, oblique subtruncato, apice fere acuto. Thorax latitudine vix longior, basin versus subangustatus, truncatus, lateribus ante medium obtuse rotundatim angulatis, dense punctatus. Elytra thorace fere duplo latiora, antrorsum angustata, ad apicem truncata, paulo declivia, basi profunde impressa, lævia, sutura tenuiter marginata, costa ad medium extendente. Abdomen lævissimum, segmento primo utrinque versus latera subtiliter carinato, carinis in segmentum 2^{ndum} paulo prolongatis.

Sexus differentia latet, verisimiliter in antennarum articulo ultimo quærenda: specimen descriptum forte masculinum.

CTENISTES Reichenbach.

Antennæ approximatae, sensim clavatae, ad marginem frontis elevatae subtus insertae.

Palpi maxillares 4-articulatae, articulis 2, 3, et 4 appendice externa elongata lineari auctis, 2 longo, curvato, apice clavato, 3 et 4 transversis, convexis.

Mentum quadratum, antice submarginatum.

Tarsi articulis 2 et 3 æqualibus, hoc unguiculis binis æqualibus.

Confer Aubé, An. Ent. 2, p. 96, quo characteres genericas perspicue pleneque representari videbis.

Victus sub cortice, et ligni fragmentis.

1. *C. piceus.* *Elongatus, depressus, piceus, pube albida sparse vestitus, capite subreticulato, postice late bifoveato, thorace lateribus rotundato, basi foveato, palpis articulo ultimo apice rotundato.* Long. .08.

Habitat in Vermont. Dom. C. B. Adams.

Sequenti major, et thoracis forma distinctus. Nigro-piceus, nitidus; caput leviter reticulatum, inter oculos late profundius bifoveatum, carinula intermedia vix conspicua, inter antenas fovea oblonga impressum, tuberculoque minimo suboculari munitum. Antennæ extus leviter incrassatae, articulo ultimo præcedentes tres longitudine æquante. Thorax latitudine vix brevior, basi truncatus, antrorsum angustior, lateribus rotundatis, fovea oblonga basali impressa maculaque versus marginem minuta albida pubescente. Elytra lateribus rectis, stria dorsali subtilissima integra. Abdomen apice rotundatum; pedes rufi.

Mas antennarum articulis 8-10 sensim paulo crassioribus, oblongis, latitudine vix longioribus, ultimo crassitie plus duplo longiore.

Femina antennarum articulis 8-10 sensim crassioribus,

rotundatis, subtransversis, ultimo crassiore, crassitie vix duplo longiore.

2. *C. Zimmermani*. *Elongatus, depressus, testaceus, parce pubescens, capite inter oculos late bifoveato, thorace lateribus parum rotundato, basi foveato, elytris stria dorsali tenui, palpis articulo ultimo apice rotundato.* Long. .07.

Habitat in Georgia et Louisiana. Dom. Lud. Le Conte. Specimina Nov. Aureliani lecta a Dom. Schaum, sub nomine dicato missa.

Testaceus, nitidus, pube brevi parce vestitus. Caput fere læve, inter oculos late minus profunde bifoveatum, inter antenas linea longitudinali brevi insculptum; tuberculo minimo suboculari instructum. Thorax latitudine non longior, basi truncatus, antrorsum angustatus, lateribus vix rotundatus; fovea oblonga basali, maculaque minuta utrinque versus latera albido-pubescentibus. Elytra lateribus rectis, stria dorsali subtilissima fere integra. Abdomen ad apicem minus late rotundatum.

Mas antennis paulo longioribus, extus vix incrassatis, articulis 9–10 oblongis, ultimo cylindrico, crassitie triplo longiore.

Femina antennis extus crassioribus, articulis 9–10 rotundatis, ultimo ovali, crassitie duplo longiore.

3. *C. consobrinus*. *Elongatus depressus, piceus pubescens, capite subreticulato, inter oculos impresso, thorace antice subangustato, basi foveato; elytris stria dorsali profunda, palporum apice rotundata.* Long. .07.

Specimen unicum masculinum ad Athenas Georgiæ inventum.

Statura omnino præcedentis, at magis pubescens; capite subreticulato, fronte canaliculato, foveis posticis confluentibus; thorace antice sub angustato, lateribus paulo rotundatis, striaque dorsali elytrorum profunda distinctus.

TYRUS Aubé.

Antennæ approximatae, 11-articulatae, ad apicem sensim clavatae, ad frontis elevatae marginem subtus insertae.

Palpi maxillares 4-articulatae, articulo 2^{ndo} longo, apice clavato, 3^{io}, 4^{to} que ovalibus, hoc paulo majore, apice acuminato, appendiculatoque.

Mentum quadratum.

Tarsi articulo ultimo paulo longiore, unguiculis binis æqualibus.

Vide Aubé, An. Ent. de Fr. 2nd ser., tom. 2, p. 90.

Speciem subtus descriptam generi Tyro adjungere ausus sum: dissuadente tamen clarissimo amico meo Schaum, cui potius Hamotus verus apparuit. Certe cum specie nostra *H. humerali* (Aubé, mihi ignota,) minime congruit, et quoad antennarum insertionem, inter hanc speciem et *Ctenistem Zimmermani* differentiam ullam perspicere non possum. Aubé porro in Hamoti descriptione, palporum articulum 3^{ium} minutum triangulare laudat, dum insectum nostrum parte illa ovoidea, vel etiam clavata, basi tenuissima, articulo ultimo parum minore valde abhorret.

1. *T. compar. Subelongatus, piceus, antennis pedibus elytrisque rubris, capite antice sulcato, vertice bifoveato, thorace linea arcuata basali foveisque insculpto; trochanteribus anticis vix productis, obtusis. Long. .07 – .08.*

Habitat in Georgia et Carolina sat frequens; specimen alterum in Territorio Missouriensi inveni.

Subelongatus, convexiusculus, piceus nitidus, parcius pubescens. Caput fronte elevata, inter antennis profunde sulcata, sulculo in fovea desinente: vertice inter oculos foveis 2 majusculis. Antennæ capite cum thorace longiores, articulis 3 – 8 æqualibus, subrotundatis, 9 – 10 crassioribus, subtransversis, ultimo præcedentes duos æquante, crassiore, ovato, apice obtuso, totæ rufo-ferrugineæ, pubescentes. Thorax latitudine vix longior, convexus, antrorsum rotundatus, basi subtruncata, linea arcuata utrinque in fovea rotundata desinente, alteraque media transversa vix distincta insculpta. Elytra convexiuscula, antrorsum angustata, lateribus rotundata, rubra, stria dorsali ante apicem abbreviata, profunda. Pedes ferruginei,

trochanteres antichi vix prominuli, intermedii triangulares, apice producti: femora antica medio subtus paulo prominula, at non dentata.

Mas trochanteribus mediis apice acutioribus distinctus.

PSELAPHUS Herbst.

Antennæ 11-articulatæ, approximatae, ad frontis elevatae marginem insertæ.

Palpi maxillares longissimi, articulo 3^{to} minuto, 4^{to} elongato clavato.

Mentum basi angustatum.

Abdomen marginatum articulo 1^{mo} maximo.

Tarsi unguiculo unico.

Genus forma elongata, antrorsum angustata, depressa, palpis longissimis facile distinguendum.

1 *P. longiclavus. Piceus, elytris sanguineis, thorace elongato, subcylindrico, palpis articuli ultimi pedunculo clavæ æquali, hac crassitie triplo longiore. Long. .07.*

Habitat in provinciis australibus, a D. Schaum benevole datus. *P. Heisei* Europæ simillimus, et palpis aliter clavatis solum differt. Palpi maxillares articulo ultimo, thorace vix brevior, a medio usque ad apicem sensim parum clavato, clava crassitie triplo longiore, vix pubescente.

2. *P. Erichsonii. Castaneus, elytris dilutioribus, thorace elongato, subcylindrico, palpis articulo ultimo subito clavato, pedicello clava duplo longiore. Long. .065.*

Specimen unicum Nov. Eboraci lectum a Dom. Wallace benevole datum. Ad memoriam beati ERICHSONII hæc species in opere suo Col. March. 1, 267 citata, tristi animo inscribitur.

Species præcedenti simillima, at paulo minor; et palporum articulo ultimo subito clavato, clava elliptica, crassitie vix duplo longiore, pedicello vero duplo brevior, facile distinguenda.

TYCHUS Leach.

Antennæ 11-articulatæ, approximatae, ad frontis elevatæ marginem subtus insertæ, sensim clavatæ.

Palpi maxillares longissimi articulo 3^{tio} et 4^{to} elongatis, triangularibus.

Mentum quadratum.

Abdomen marginatum, articulis subæqualibus.

Tarsi unguiculo unico.

Genus *Pselapho* certe affinis, differt autem palpis aliter formatis, mandibulis prominulis, abdominisque articulo 1^{mo} reliquis vix majore.

Corpus elongatum minus depressum, elytris thorace latioribus subparallelis; palpi maxillares longissimi, antennis vix breviores, articulo 2^{ndo} tenuissimo, apice sensim clavato, 3^{tio} sesqui brevioris plano, triangulari, intus appendice brevi (in speciebus nostris,) instructo; 4^{to} majore securiformi, angulis rotundatis, apice seta tenui aucto. Mandibulæ acutæ curvatæ, porrectæ. Thorax capite latior, rotundatus. Antennæ elongatæ.

1. *T. longipalpis*. Rufus, pubescens, fronte leviter sulcata, verticeque subcanaliculato, thorace fere globoso. Long. .08.

Habitat in Carolina. Dom. Zimmerman.

Elongatus, rufus nitidus pubescens. Caput tuberculo frontali leviter sulcato, pone antennis transversim paulo impressum, vertice longitudinaliter impresso. Antennæ articulis 3-8 æqualibus, rotundatis, 9 et 10 duplo crassioribus, globosis, ultimo ovato apice acuto crassiore, præcedentibus 2 æquali. Thorax rotundatus, capite sesqui latior, basi fovea parva ad medium, alteraque utrinque ad latera impressus. Elytra thorace sesqui latiora, antrorsum parum angustata, modice convexa, stria dorsali pone medium abbreviata. Pedes elongati, simplices.

Sexus differentia mihi ignota.

2. *T. minor*. Rufus, parce pubescens, fronte profunde

divisa, capite arcuatim impresso, vertice convexo, thorace antrosum subangustato. Long. .06.

Specimen unicum e valle Nakutshi, Georgiae.

Præcedente plus duplo minor, antice magis angustatus, saturate rufus, parce pubescens. Caput fronte profunde breviter diviso; arcuatim impressum, vertice convexo, lævi. Antennæ omnino sicut in præcedente. Thorax latitudine paulo longior, ad apicem angustatus, ad basin punctis 3 vix conspicuis impressus. Elytra sicut in priore.

ADRANES.

Antennæ approximatae, 2-articulatae, articulo 2^{ndo} longissimo truncato.

Palpi maxillares brevissimi, (biarticulati?).

Oculi nulli.

Abdomen supra excavatum, articulo 1^{mo} maximo.

Tarsi unguiculo unico, articulis 2 primis obsoletis.

Genus Clavigero similis, antennis autem biarticulatis, corporeque depresso distinctus. Oris partes tam rudimentales, sine sectione haud rite visendæ: nomen ab ἄδρανής, *imbecillis*, derivatur.

Corpus depressum antice valde angustatum.

Caput angustum, antice utrinque lateraliter excavatum, antennis valde approximatis in excavatione insertis, fronte paulo elevata; utrinque in medio puncto laterali saliente in oculorum situ. Abdomen marginatum subtus 5-articulatum, supra vero 3-articulatum, articulo 1^{mo} maximo, excavatione magno basali, cum mamilla parva flavo-pubescente utrinque ad marginem. Elytra angulo externo apicali rotundato, ita ut ad apicem angulato-rotundata apparent. Pedes omnes inarmati, tarsorum articulis basalibus inconspicuis, (vel omnino nullis.)

1. A. cæcus. *Testaceus, punctatus, brevissime pubescens, abdomine lævissimo, glabro, thorace basi foveato. Long. 08.*

Specimen unicum ad Montis Jonæ (Georgiæ) apicem, cum formica parva nigerrima, abdomine cordato, a Dom. W. L. Jones amice inventum.

Depressus, saturate testaceus, brevissime pubescens, sat dense punctatus. Antennæ capite sesqui longiores, articulo basali parvo, secundo longissimo, sensim clavato, apice truncato. Caput latitudine duplo longius, medio utrinque parum prominulo. Thorax capite duplo latior, latitudine non brevior, ante medium subito angustatus, basi truncata, medio fovea oblonga majuscula impressus. Elytra antrorsum valde angustata, lateribus fere rectis, sutura non marginata, ad apicem in medio utrinque flavo ciliata. Abdomen glabrum, lævissimum, mamilla utrinque basali flavo-tomentosa; excavationis pars antica triangulariter profundius impressa.

HAMOTUS Aubé.

“*Antennæ moniliformes, apice clavatæ, in fossula lateralis frontis insertæ. Palpi maxillares 4-articulati, articulo ultimo fusiformi.*” *Tarsis unguiculis binis æqualibus.*

Habitus generis *Bryaxis*, abdominis autem articulis æqualibus, tarsisque biunguiculatis differt. Palpi maxillares modice elongati, articulo 2^{ndo} clavato, elongato, 3^{tio} minuto triangulari, ultimo 2^{ndo} fere æquali, fusiformi.

An rite hic ponendum hoc genus? Palporum structura ad genus meum *Cedium* supra descriptum valde approximatur; sed antennarum insertionem in iisdem verbis sicut in *Bryaxis* descriptione declarat Cel. Dom. Aubé, (An. Ent. l. c. 91, 103.) Si antennæ revera approximatae sunt, ad seriem primam meam pertinet hoc genus, et inter *Cedium* et *Tyrum* ante *Tmesiphorum* locum teneat.

1. *H. humeralis. Elongatulus, convexiusculus, rufo castaneus, abdomine nigro, capite subtilissime reticulato, vix bipunctato, thorace ovato foveolis tribus linea arcuata connexis impresso. Long. 1 $\frac{2}{3}$ mill.*

Habitat in Carolina boreali, mihi ignotus.

Aubé, l. c. 93. Frontem antice canaliculatam declarat, antennarumque articulum ultimum præcedentibus 2 æqualem, apice obtusum: elytra stria dorsali profunda, integra.

BRYAXIS, Leach.

Antennæ basi modice distantes, in fossula sub frontis margine insertæ.

Palpi maxillares 4-articulatæ, articulo 4^{to} fusiformi.

Mentum cordatum, basi angustatum.

Abdomen marginatum, articulo 1^{mo} majore.

Tarsi unguiculo singulo.

Vide Aubé, An. Soc. Fr. l. c. 103. Corpore convexo thoraceque foveato facile distinguendum hoc genus.

1. *B. conjuncta. Nigra nitida, elytris sanguineis, thorace globoso, foveis tribus, intermedia minore, sulco arcuato connexis, antennis pedibusque rufis. Long. .08.*

Habitat in provinciis orientalibus.

B. sanguineæ Europæ simillima, differt tamen fovea thoracis intermedia minore, antennisque aliter clavatis.

Mas antennis longioribus, articulis 9–10 præcedentibus duplo crassioribus, ultimo oblongo, apice subacuto, illis conjunctis fere longiore, at non crassiore, trochanteribus anticis spinosis, tibiis anticis medio intus dentatis, postpectore utrinque postice acute prominulo, medio excavato.

Femina antennarum articulis 9–11 sensim crassioribus, ultimo majore ovato, 9^{no} præcedente vix majore.

2. *B. dentata. Nigra, nitida, elytris sanguineis, capite trifoveato, thorace postice angustato, foveis magnis æqualibus vix conjunctis, externis in lateribus ipsis impressis. Long. .08.*

Habitat ubique minus frequens, Mass., Nov. Ebor., Illinois.

Pselaphus dentatus Say, J. Ac. Nat. Sc. 4, 99.

B. xanthopteræ (Aubé An. Ent. Soc. l. c. 107,) simillima videtur, et thoracis solum forma differre. Parva, nigra nitida. Caput trifoveatum. Antennæ corporis dimidio æquales, articulis 3–8 sensim parum brevioribus, 9^{no} paulo crassiore, 10^{mo}

duplo crassiore transverso, ultimo ovato, longitudine præced. 3 æquali, apice subacuto. Thorax subglobosus, utrinque tamen angustatus, medio rotundatim angulatus, foveis 3 magnis basalibus, obsolete connexis, externis in ipso latere impressis. Elytra sanguinea, stria dorsali obliqua ante apicem obsoleta, abdominis articulo 1^{mo} reliquis conjunctis æquali, basi brevissime bistriato. Pedes rufi. Mas latet.

3. *B. velutina*. *Minuta, rufa, longius pubescens, thorace subtransverso, ad basin fovea magna, alteraque minore utrinque in latere impressa, elytris parce subtilissime punctulatis.* Long. .05.

Habitat Nov. Aureliani, frequens, a D. Schaum, sub nomine dicato benevole missa.

Præcedente duplo minor, rufus, convexus, longius pubescens. Caput utrinque leviter impressum, postice foveis 2 magnis. Antennæ breviusculæ, articulis 3–9 æqualibus rotundatis, 9^{no} paulo crassiore, 10^{mo} iterum duplo crassiore, transverso, ultimo ovato, apice rotundato, præcedentes 3 æquante. Thorax convexus, subtransversus, lateribus valde rotundatus, fovea magna in basin mediam, alteraque utrinque minore in ipso latere impressus. Elytra parce obsolete punctulata, stria dorsali parallela, tenui apice obsoleta. Abdomen articulo 1^{mo} reliquis conjunctis æquali, usque ad medium bistriato.

Sexus differentia me evadit.

4. *B. abdominalis*. *Rufo-testacea, thorace lateribus subangulato, foveis 3 æqualibus impresso, abdominis articulo 1^{mo} sequentibus paulo majore, elytris subtiliter punctulatis, trochanteribus anticis muticis.* Long. 08.

Habitat ad Cantabrigiæ (Mass.,) in pratis salinis, mense Maio, sat frequens, Nov. Eboraci rarius.

Bryaxis abdominalis Aubé, Mon. Ps. 27, tab. 82, fig. 2.

——— *dentata* † *ej.* An. Soc. Ent. Fr. l. c. 112.

A sequente abdominis segmento 1^{mo} paulo majore differt.
Vide Aubé, l. c.

Mas abdominis articulo 1^{mo} medio profunde excavato, utrinque gibboso, 2^{ndo} medio excavato, utrinque transversim gibboso, 3^{tio} postice 4-tuberculato.

5. *B. hæmatica*. *Rubro-cinnamomea*, thorace lateribus rotundato, foveis 3 æqualibus impresso, abdominis articulo 1^{mo} reliquis conjunctis majore, elytris subtiliter punctulatis, trochanteribus anticis muticis. Long. .08.

Leach, Zoöl. Misc. 3, 86; *Aubé*, Mor. Ps. 26, tab. 82, 1, An. Ent. Soc. 111. Mihi ignota, an recte Americæ citata. In Europa sat frequens. Pro synonymia vide *Aubé*, l. l., et *Er. Käf. Deutsch.* 1, 269.

6. *B. luniger*. *Elongata, rufa*, thorace punctulato, foveis 3 intermedia minore, sulculo tenui conjunctis, elytris subtiliter punctulatis, trochanteribus anterioribus armatis, antennarum articulo 1^{mo} supra emarginato. Long. .10.

Specimen unicum (femineum?) ad Cambridge in pratis salinis lectum.

Elongata, rufa, brevissime pubescens. Caput parce punctulatum, inter oculos bifoveatum, fronte impressa fere binodosa. Antennæ elongatæ, articulis 3–8 sensim brevioribus, rotundatis, 9^{no} plus duplo crassiore transverso, subtus paulo magis producto, 10^{mo} magno, supra profunde emarginato, appendice parva clavata pone emarginationem antice versa armato; ultimo ovato, crassitie fere duplo longiore. Thorax subglobosus, subtilissime punctulatus foveis 3 postice in disco impressis, intermedia paulo minore, his stria minus impressa arcuata fere connexis. Elytra subtilissime punctulata, stria dorsali parum obliqua. Abdomen articulo 1^{mo} elongato. Pedes longiusculi; trochanteribus anticis et intermediis spinula armatis.

7. *B. puncticollis*. *Rufa capite lævi*, thorace dense punctulato, fovea intermedia minima. Long. .06.

Habitat Novi Aureliani, a Dom. Schaum benevole data.

A *B. juncorum* Europæ præcipue capite impunctato differt. Convexa rufa, breviter pubescens. Caput 3-foveatum. Antennæ articulis 3-7 æqualibus, oblongis, 8-10 sensim crassioribus, præced. paulo brevioribus, ultimo ovato, præcedentibus 3 æquali. Thorax subtransversus, lateribus subangulatus, dense subtiliter punctatus, fovea intermedia parva, externis magnis. Elytra impunctata, stria dorsali fere integra. Abdomen articulo 1^{mo} paulo majore basi brevissime bistriato.

Mas pectore abdominisque articulo inferiore penultimo excavatis.

8. *B. rubicunda*. *Convexa picea, elytris sanguineis, thorace lateribus subangulatis fovea intermedia minore, antennis breviusculis, articulis intermediis oblongis, penultimis leviter discretis.* Long. .06.

Habitat ubique sat frequens. Nov. Eboraci, Georgia, Terr. Miss.

Aubé, An. Soc. Ent. Fr. l. c. 116.

Mas antennis paulo longioribus, tibiis intermediis calcare terminali brevissima armatis differt.

9. *B. propinqua*. *Convexa picea, elytris sanguineis, thorace fere globoso fovea intermedia minore, antennis breviusculis, articulis intermediis rotundatis, penultimis arctius conjunctis.* Long. .06.

Habitat ad Lacum Superiorum.

Præcedenti simillima, antennis vero structura, thorace globoso, lateribus regulariter rotundatis, fovea intermedia minore, elytris ad basin fovea parva inter striam et suturam impressis differt.

Mas antennis capite thoraceque parum longioribus, articulis 3-4 subæqualibus, 5^{to} duplo crassiore at non longiore, 6-9 iterum minoribus, æqualibus, subtransversis, rotundatis approximatis, 10^{mo} crassiore, transverso, ultimo ovali, 10^{mo} non crassiore, 4 præcedentibus æquali: tibiis intermediis calcare minimo ad apicem armatis.

Femina, antennis capite thoraceque parum longioribus, articulis 3-8 crassitie æqualibus, sensim paulo brevioribus rotundatisque, 9^{no} parum crassiore, 10^{mo} iterum crassiore, majore.

Aubé Mon. Ps. 33, Tab. 84, I. ej. An. Ent. Soc. Fr. I. c. 113. Mihi ignota.

B. Antennis 10-articulatis.

10. B. abnormis. *Convexa, rufa impunctata, longe et dense pubescens capite bifoveato, thorace rotundato, fovea subbasali, antennis 10-articulatis.* Long. .06.

Habitat in provinciis mediis Australibus et Borealibus.

Statura B. rubicunda paulo major, convexa, picea, nitida, impunctata, dense longe pubescens. Caput postice bifoveatum fronte vix impressa. Antennæ breviusculæ, longius pilosæ, articulis 3-7 æqualibus, rotundatis, 8^{vo} sesqui crassiore, 9^{no} iterum crassiore et majore, his transversis subrotundatis, ultimo (10^{mo}) majore ovali, apice subacuto, præcedentes 3 æquante. Thorax rotundatus, convexus, subtransversus, fovea subbasali in medio impressus. Elytra, sanguinea, convexa, stria dorsali paulo obliqua, pone medium abbreviata, profunda. Abdomen articulo, primo reliquis conjunctis majore, tenuiter bistriato. Pedes testacei, trochanteribus muticis.

Sexus differentia, nonnisi antennis maris paulo longioribus, me fugit. Species propter antennas 10-articulatas mirifica, sed aliter a *Bryaxis* typicis minime distincta.

11. B. longula. *Elongata, minus convexa, rufo-sanguinea, pubescens, abdomine obscuriore, thorace rotundato, postice medio foveato, elytris parce punctulatis antennis 10-articulatis.* Long. .06.

Habitat Nov. Eboraci et ad Lacum Superiorem minus frequens.

A præcedente, thoracis fovea majore, corpore elongato, minus convexo, elytris punctulatis distincta.

Rufo-sanguinea, abdomine obscuriore, elongata, minus convexa, nitida, sat dense pubescens. Caput 3-foveatum, fovea

antica minus distincta. Antennæ sicut in præcedente at minus pilosæ, articulo 3^{to} paulo longiore. Thorax latitudine non brevior, lateribus magis rotundatis, fovea basali majore. Elytra lateribus fere parallelis, humeris rotundatis, parce subtiliter punctulata, stria dorsali tenui fere integra. Abdomen quam in præcedente longius; pedes sicut in priore.

Sexus differentia me fugit.

12. *B. formiceti*. *Elongata rufa, valde pubescens, thorace rotundato 3-foveato, fovea intermedia majore, elytris parce distinctius punctulatis, antennis 10-articulatis.* Long. .04.

Specimen unicum in Pennsylvania, cum Formica pennsylvanica, Aprilo inveni. Statura præcedentis, at minor, abdomineque paulo brevior. Antennæ articulis 3-8 æqualibus, 9 crassiore, transverso, 10 præced. 3 æquali, fere rotundato, apice subacuto. Thorax fovea intermedia majore. Elytra parce distinctius punctulata, stria dorsali tenui, fere integra.

EUPSENIUS.

Antennæ clavatæ, distantes, ad marginem frontis anteriorem lateraliter sitæ.

Palpi maxillares breviusculi, articulo ultimo ovali.

(Mentum basi angustatum?)

Abdomen marginatum, 5-articulatum, art. 1^{mo} majore.

Tarsi unguiculo unico, articulis 2 et 3 æqualibus.

Habitus fere Bryaxis, a qua differt antenni svalde clavatis, longius ante oculos, ad frontis ipsam marginem, sicut in Rhexio insertis. Ab Euplectis differt abdominis articulo 1^{mo} majore, habitu minus elongato, abdomineque articulo 6^{to} nullo. Mentum an quadratum, an basi angustatum, propter specimen exiguum mihi haud satis constat. Pedes minus elongati, femoribus valde clavatis. Palpi breviusculi, articulo ultimo reliquis conjunctis fere æquali, ovali.

Nomen a *eu* et *ψηνός*, *rasus*.

1. *E. glaber*. *Lævissimus, flavicans, capite bifoveato,*

thorace linea basali arcuata, elytris basi utrinque bifoveatis.
Long. .04.

Specimen unicum ad Columbiam (S. C.) a D. Zimmermani inventum.

Corpus lævissimum, glaberrimum, flavescens, nitidum. Caput inter oculos foveis 2 magnis impressum. Antennæ capite thoraceque breviores, articulis 3–8 minutis, 9 et 10 valde transversis, cum ultimo clavam ovalem apice subacutam formante, quæ longitudine funiculum æquat. Thorax capite vix latior, subcordatus, ante medium latior, basi truncatus, utrinque in ipso latere foveatus, alteraque minore ad medium, his linea profunda arcuata conjunctis. Elytra thorace sesqui latiora, convexa, sutura subtilissime marginata, basi utrinque profundius bifoveata. Abdomen elytris brevius, basi depressiusculum, versus apicem vero deflexum, anguste marginatum, articulo 1^{mo} reliquis conjunctis fere æquali.

ARTHMIUS.

Antennæ basi subapproximatæ, in fossula ad frontis marginem inserta.

Palpi maxillares 4-articulatæ, articulo 3^{tio} parvo, 4^{to} elongato, fusiformi.

Mentum basi angustatum.

Abdomen immarginatum.

Tarsi unguiculo singulo.

Batriso, propter abdomen immarginatum proximum videtur hoc genus, discedit autem antennis minus distantibus, frontis margine ad insertionem paulo emarginato (in Batriso recte continuato.) Thorax globosus, estriatus, habitum peculiarem Batriso alienum, Bryaxi multo similiorem præbet. Bythino quoque aliquantulum spectat.

Nomen ab ἄρθμιος, *confederatus*.

1. A. globicollis. *Rufus nitidus, impunctatus, occipite bifoveato, thorace globoso, linea arcuata basali insculpta,*

elytris stria brevissima parum distincta, tibiis anticis compressis, extus ad medium unidentatus. Long. .06.

Habitat in Georgia et Pennsylvania, D. D. Zimmermann et Ziegler.

Modice elongatus, convexus, rufus nitidus, parum pubescens. Antennæ longiusculæ, articulis 2-4 sensim paulo brevioribus, 5, 6, 7 æqualibus longioribus, paulo oblongis, 8-10 sensim paulo crassioribus, rotundatis, ultimo ovato, apice acuto, præcedentibus tribus longitudine fere æquali. Caput subtriangulare, oculis mediocribus prominulis, occipite bifoveato, fronte mox pone antennis utrinque leviter impresso. Thorax capite non major globosus, linea arcuata basali profunda, utrinque in fovea parva desinente insculptus. Elytra convexa, stria dorsali brevissima fere nulla. Abdomen convexum, articulo 1^{mo} reliquis conjunctis æquali, seq. penult, inferiore profunde excavato.

Tibiæ anticæ medio dentatæ.

Mas antennarum articulo 5^{to} præcedentibus crassiore.

BATRISUS Aubé.

Antennæ basi distantes, in fossula laterali, sub frontis margine rectæ insertæ.

Palpi maxillares 4-articulati, articulo 4^{to} fusiformi.

Tarsi articulis 2 et 3 æqualibus, hoc unguiculis binis inæqualibus.

Abdomen immarginatum.

Vide Aubé, An. Ent. Fr. l. c. sup.

Genus specierum locuples, et propter sexus differentias peculiare enodari admodum difficile. Secundum ordinem naturalem dispositæ, species in turmas subtus enumeratas sejungi videntur. Quo melius specierum differentias intelligas, diagnosin brevem ad speciem quamque Americanam adjici, ita ut tabula quasi synoptica efformatur.

A. Tibiis posticis calcare obsoleto vel nullo.

1. Fronte postice concava, vertice non cristato: ♂ antennarum articulo ultimo dentato solum cognoscendus.

1. ♂ ♀ *Ionæ*. Capite læviusculo vertice valde elevato, thorace 3-lineato.

(Hic ponendi, sunt B. formicarius, Germari, Dregei, et venustus.)

2. Fronte postice concava, vertice cristato, fossulis lateralibus permagnis; ♂ tibiis anticis contortis spiniferis.

2. ♂ *Armiger*. Vertice 3-cristato, antennarum art. ult. longissimo, tarsis posticis articulo 1^{mo} dilatato.

3. ♂ *Monstrosus*. Vertice 3-cristato, antennarum art. ult. longiusculo, tarsis posticis simplicibus.

4. ♂ ♀ *Ferox*. Vertice 3-cristato, antennarum art. ult. ovali, impress. capitis confluentibus.

5. ♀ *Cristatus*. Vertice 3-cristato, antennarum art. ult. ovali, impress. capitis discretis.

6. ♀ *Confinis*. Vertice 1-cristato, antennarum art. ult. ovali, imp. capitis conjunctis. Ad hanc turmam forte referendus B. australis Er.

B. Tibiis posticis calcare terminali longo, tenui.

3. Fronte inter antennas, plus minusve elevata, retusa vel marginata, clypeo apice sæpius ♂ dentato, vel cornuto.

7. ♂ *Frontalis*. Capite lævi, fronte valde retuso, rufus, elytris impunctatis.

8. ♂ ♀ *Punctatus*. Capite lævi, vertice tuberculato, rufus elytris punctatis.

9. ♂ ♀ *Riparius*. Capite leviter scabro, vertice cristato, lævi, rufus, elytris punctatis.

10. ♂ ♀ *Scabriceps*. Capite scabro, castaneus, elytris punctatis, antennis gracilibus.

11. ♂ *Nigricans*. Capite lævi, thorace 3-lineato, niger, elytris impunctatis.

(Hic interponendus B. oculatus Europæ.)

12. ♂ ♀ *Striatus*. Capite lævi, thorace 3 lineato, elytris obsolete punctulatis.

(Forte hic advenit B. Delaporti Europæ.)

13. ♂ ♀ *Globosus*. Capite scabro, vertice lævi, thorace 3-lineato, elytris impunctatis.

14. ♂ ♀ *Spretus*. Capite lævi, thoracis linea media obsoleta, niger elytris impunctatis.

4. Fronte plana, minime retusa.

15. ♂ *Bistriatus*. Capite scabro, vertice lævi, thoracis linea media obsoleta.

16. ♂ ♀ *Lineaticollis*. Capite scabro, thorace 3-lineato.

In hac turma, verisimiliter ponendus B. albionicus Californiæ.

Observations. I am not quite certain that I have intercalated the foreign species in the proper place; as the characters which I have chosen to define the groups appear not to have been regarded before. Even so important a mark as the terminal spur of the posterior tibiæ has been mentioned by Aubé in only a single instance, (B. oculatus,) although from his having omitted it in B. lineaticollis and Schaumii, in which it is very obvious, we may easily imagine that it has been overlooked in other species. The sexual characters of B. Delaporti are so very similar to those of several species of my third group, that I think it most probably belongs where I have placed it.

A few words on the great number of species which I have ventured to establish: In the second group it may appear that I have increased the species without suffi-

cient grounds, considering that there still remain four species of which we know only one sex. I have found that in this genus, the most closely allied species possessed similar sexual characters; therefore, observing that in the two sexes of *B. ferox* there was no difference in the structure of the head and antennæ, I concluded that the two females (5 and 6) were each different from the two males, (2 and 3.) The other three species, of which one sex is deficient, will be admitted without difficulty, as in each instance the individual described has been a male.

In the Northern States an individual of this genus is scarcely ever seen apart from a colony of ants, but in the South, they are quite frequently found under the bark of trees, where no ants are to be seen. The northern species, as far as my experience goes, are found only under stones; the southern ones, (except *B. Ionæ* and a few specimens flying in twilight,) occurred under bark.

A. 1.

1. *B. Ionæ*. *Rufus, capite læviusculo, vertice tuberculato, thorace 3-lineato, antennis crassiusculis.* Long. .10.

Specimina duo ad montis Ionæ Georgiæ apicem cum formica parva nigra, opaca, pedibus antennisque rufo-piceis, Maio inveni.

Rufus pubescens. Caput ad latera vix conspicue scabrum, vertice valde elevato, obsolete foveato convexo, sulco semicirculari lato profundo definito. Antennæ crassiusculæ, articulis 2-8 æqualibus, 9 et 10 sensim parum majoribus, 11 longiore crassiore, ovali, apice acuto. Thorax sub campanulatus, lateribus rotundatus, fortiter 3-lineatus tuberculo utrinque parvo acuto versus basin. Elytra parce vix punctulata, humeris truncatis, angulo obtuso, stria dorsali ante medium abbreviata. Pedes valde elongati, tibiis posticis calcari brevissimo, vix cerendo.

Mas articulo antennarum ultimo intus ad basin dentato, præced. 3 longitudine æquante. Femina, antennarum art. 8^{vo} paulo minore, 9 et 10 sesqui crassioribus æqualibus, 11^{mo} præced. 2 æquante, basi rotundato.

A. 2.

2. *B. armiger*. *Rufus, capite scabriusculo, vertice elevato, 3-cristato, sulco lato circumcincto, antennarum articulo 10^{mo} globoso, ultimo longissimo.* Long. .09.

Habitat in Pennsylvania cum formica media rufa.

Rufus, parce pubescens. Caput magnum, leviter scabrum, lateribus postice acutis, vertice elevato, 3-cristato, sulco cir-

cumducto, utrinque late foveatum, fronte valde excavata. Antennæ capite thoraceque longiores, art. 2 – 9 sensim parum brevioribus, 10 majore globoso, 11 præcedentes 5 æquante, basi oblique truncato, apice depresso, acuto, præcedente vix crassiore. Thorax subcampanulatus, lateribus ad medium spinosis, fortiter 3-lineatus, interstitio utroque seriatim 3-spinoso; (spinis 2 ante medium acutis, reflexis.) Elytra impunctata, humeris truncatis, angulo obtuso, stria ad medium abbreviata. Tarsi postici articulo 2^{ndo} tumido. (An nota sexualis?)

Mas tibiis anticis medio contortis, dente longo acuto ad medium, alteroque prope basin parvo armatis, femoribus intermediis superne subito emarginatis, tibiis calcare interno terminali; antennarum art. ultimo basi subtus oblique producto.

Femina latet.

3. *B. monstrosus*. *Rufus, capite lævi vertice elevato 3-cristato, sulco lato circumcincto, antennarum articulis 9 et 10 majusculis, globosis.* Long. .09.

Specimen unicum ad Athenas Georgiæ, sub cortice inventum.

Statura et summa affinitas præcedentis, capite lævi, antennarum articulo 9^{no} præced. duplo majore, 10^{mo} fere æquali, globosis: ultimo ovali basi oblique truncato, apice depresso præced. 3 longitudine æquali; tarsisque posticis simplicibus differt.

Mas notis iisdem cognoscendus, licet dente tibiæ anti-carum lato, brevior distinctus.

4. *B. Ferox*. *Rufus, capite lævi, vertice elevato, 3-cristato, sulco lato circumcincto, antennis gracilibus, articulo ultimo ovalis.* Long. .09.

Habitat in Pennsylvania et Ohio, cum formicis variis.

Statura omnino præcedentium, at fronte profundius latius excavato, thorace minus profunde lineato ad latera vix spinoso, spinulis discoidalibus 4 primis minutis, antennisque gracilibus, articulis 8 – 10 sensim paulo crassioribus, 11^{mo}

duplo longiore, ovali, crassiore, apice acuto. Elytra parce subtiliter, punctata. Tarsi postici simplices.

Mas notis sicut in *B. monstroso*, at tibiæ antice nullæ, spina suprema nulla, infera lata, brevi; antennæ art. 11^{mo} dente vix conspicuo interno ante basin, 10^{mo} vero superne paulo sinuato.

Femina, tibiis anticis pedibusque intermediis simplicibus.

5. *B. cristatus*. *Rufus, capite discrete 3-impreso, vertice elevato 3-cristato, thorace obsolete lineato, articulo antennarum ultimo ovali.* Long. . . .

Specimen unicum in Pennsylvania, cum form. magna rufa, capite obscuriore, D. Haldeman.

Statura et forma omnino præcedentis, at capite aliter impreso, thoraceque spinulis nullis anterioribus differt.

Rufus, pubescens. Caput antice late excavatum, super oculos late foveatum, vertice elevato, 3-cristato. Antennæ sicut in præcedente, articulo 10^{mo} tamen paulo transverso. Thorax subcampanulatus, lateribus rotundatus, obsolete lineatus, versus basin fortius bispinosus. Elytra humeris oblique truncatis, angulo prominulo, stria dorsali brevissima minus distincta.

Mas latet.

6. *B. confinis*. *Rufus, capite lævi, vertice elevato, 1-cristato, sulco circumcincto, thorace obsolete lineato, antennis gracilibus, articulo ultimo ovali.* Long. .08.

Specimen unicum femineum ad Athenas Georgiae Maio inveni.

Statura præcedentis, vertice 1-cristato, sulco circumcincto, thoracis spinis subbasalibus minoribus differt. Antennæ adhuc magis graciles, articulis 9–10 vix crassioribus, at non brevioribus, 11^{mo} sesqui crassiore duploque longiore ovali, acuto.

B. 3.

7. *B. frontalis*. *Rufus, capite lævi, fronte valde retusa, vertice elevato, sulco profundo circumcincto, thorace 3-lineato, elytris impunctatis.* Long. .09.

Specimen unicum masculinum a Pennsylvania, D. Halde-
man.

Statura præcedentium, sed propter tibias posticas calcaratas
in turma hacce ponendus.

Rufus parce pubescens. Caput magnum, fronte extenso,
transversim elevato, valdeque retuso, clypeo ad apicem cornu
horizontali armato, vertice modice elevato, convexo, sulco
profundo lato circumcincto. Antennæ elongatæ art. 3-8
sensim parum brevioribus, 9-10 paulo crassioribus, 11^{mo} ma-
jore ovali acuto, subtus ad medium vix conspicue inciso, den-
tatoque (nota sexualis). Thorax latitudine non longior, cam-
panulatus, lateribus valde rotundatus, fortiter 3-lineatus, ante
basin tuberculis 2 parvis subacutis. Elytra impunctata,
humeris truncatis, stria dorsali profunda, fere ad medium
extensa.

8. *B. punctatus*. *Rufus, capite lævi, vertice elevato, sulco
profundo circumcincto thorace 3-lineato, elytris punctatis.*
Long. .08.

Habitat in Georgia; Athenas, Nakutshique ad montes.

Rufus, parum pubescens. Caput læve, fronte super anten-
nas utrinque elevata, vertice elevato, convexo, sulco profundo
ambiente. Antennæ elongatæ, graciles, art. 2^{ndo} crassiore,
at sequentibus non brevioribus, 3-8 æqualibus, 9 et 10 vix cras-
sioribus, ultimo sesqui crassiore, triplo longiore, ovato, acuto.
Thorax subpentagonus, lateribus fere angulatus, fortiter 3-
lineatus, disco utrinque pone medium carinatus, ante basin
dente distincto armatus. Elytra sat grosse punctata humeris
vix truncatis, stria dorsali valde abbreviata.

Mas, antennarum articulo ultimo subtus ad basin dente
valde distincto.

9. *B. riparius*. *Rufus, capite leviter scabro, vertice cris-
tato lævi, sulculo ambiente, thorace 3-lineato, elytris punc-
tatis.* Long. .07.

Aubé, An. Ent. Fr. l. c. 83.

Say, I. Ac. Nat. Sc. 4, 98.

Habitat in Georgia, sub cortice pinuum sat frequens; in Pennsylvania cum Form. pennsylvanica, sub lapidibus rarius.

Rufus, parce pubescens. Caput leviter reticulato-punctatum, fronte inter antennis paulo concava, antice subacute leviter retusa: vertice modice elevato, lævi, tenue cristato, sulco angusto ambiente, postice in fovea utrinque profunda desinente. Antenna articulis 3 – 8 æqualibus crassitie haud longioribus, 9 – 10 paulo majoribus, 11^{mo} ovali, acuto. Thorax longiusculus, lateribus medio rotandatus, 3-lineatus, *utrinque obsolete carinatus*, ante basin distinctius bidentatus. Elytra punctata humeris parum truncatis, stria dorsali brevissima.

Mas, antennarum articulo 10^{mo} majore globoso, ultimo non crassiore elongato, sinuato, infra ad basin dente distincto armato.

Femina antennarum articulo 10^{mo} præcedente paulo majore, ultimo sesqui crassiore, ovali, acuto.

In structura maris antennarum omnino cum Beati Sayi descriptione quadrat hæc species: puncturam elytrorum autem, licet distinctam memorat nec ille, nec Ill. Dom. Aubé. Forsitan species distincta mihi ignota ab auctoribus citatis indicatur.

10. *B. scabriceps*. *Cinnamomeus*, capite scabro, vertice parum elevato, vix cristato, sulco tenui ambiente, thorace 3-lineato, elytris punctatis. Long. .07.

Habitat Nov. Aureliani; a Dom. Schaum sub nomine Schaumii benevole datus.

Cinnamomeus, pubescens. Caput scabrum, fronte mox ante antennis rotundato, marginatum, retusam, vertice parum elevato, obsolete cristato, sulculo minus profundo ambiente postice in fovea utrinque occipitali desinente. Antennæ longiusculæ, tenues, art. 3 – 8 latitudine paulo longioribus, 9 – 10 sensim paulo crassioribus, ultimo ovato, acuto. Thorax lateribus subangulatus, fortiter 3-lineatus utrinque sub-carinatus, ante basin fortiter bispinosus. Elytra parce subtilius punctata, humeris truncatis, stria dorsali brevi profunda.

Mas, antennarum articulo 10^{mo} majore, ultimo non crassiore, basi vix dentato, frontis apice ipsa excavata.

Femina, antennis paulo brevioribus, art. 10^{mo} præced. crassiore ovali, frontis apice simplici.

Obs. Descriptioni Aubeanæ (An. Ent. l. c. 84,) minime convenit. Potius cum *B. punctato* meo (supra) quadrat species Aubeana, discedit autem capite reticulato.

11. *B. nigricans*. *Niger, capite fere læve, vertice leviter cristato, sulco lato ambiente, thorace 3-lineato, elytris impunctatis*. Long. .08.

Specimen unicum masculinum ad Columbianam Car. Australis inveni.

Niger, nitidus parum pubescens. Caput trigonum, postice truncatum, læve, lateribus acute carinatis, fronte leviter punctata, in ipso apice breviter bidentato retusoque, vertice leviter elevato, subtiliter cristato, sulco profundo ambiente. Antennæ articulo 3^{tio} crassiusculo, 4 – 8 æqualibus, crassitie haud longioribus, 9 paulo majore, 10 fere duplo crassiore globoso, ultimo sesqui longiore ovali, acuto. Thorax longiusculus, lateribus medio rotundatus, 3-lineatus, ante basin utrinque spinula parva armatus. Elytra impunctata, humeris paulo truncatis, stria dorsali ante medium abbreviata.

B. oculato Europæ (Aubé, l. c. 85) affinis videtur.

12. *B. striatus*. *Piceus, capite leviter scabro, vertice lævi, elevato, cristato, sulco ambiente, thorace 3-lineato, lateribus subangulato, elytris sanguineis, obsolete punctulatis*. Long. .07.

Habitat in Pennsylvania.

B. riparii feminam maxime refert, at capitis sulcis paulo profundioribus, antennarum articulo ultimo brevior thorace paulo minus elongato, punctis elytrorum minus distinctis, coloreque obscuro distinguendus.

Piceus, pubescens. Caput punctatum, fronte transversim paulo elevata, vertice lævi, modice elevato, cristatoque, sulco ambiente, postice utrinque in fovea majuscula desinente. Antennæ testaceæ art. 2 – 8 æqualibus, crassitie haud longiori-

bus, 9, 10 sensim majoribus, rotundati, ultimo sesqui longiore crassiore ovali acuto. Thorax latitudine non longior, subpentagonus, lateribus fere acute rotundatus, fortiter 3-lineatus, utrinque subcarinatus, ante basin dentibus 2 minutis armatus. Elytra sanguinea obsolete parce punctulata, humeris truncatis, stria dorsali ante medium abbreviata.

13. *B. globosus*. *Obscurus, capite scabro vertice lævi, cristato, sulco ambiente, thorace 3-lineato lateribus rotundato, elytris sanguineis, obsolete punctulatis*. Long. .07.

Habitat in Pennsylvania et Georgia, cum formicis variis.

Femina præcedentem valde refert, et præter antennarum art. 9^{no} præcedente non majore, thoraceque lateribus minus subito angulato non differt.

Obscure rufus, modice pubescens. Caput antice scabrum, vertice lævi, modice elevato, leviterque cristato, sulco ambiente, postice in fovea utrinque desinente. Antennæ breviusculæ, art. 2 – 9 æqualibus, 10 majore rotundato, ultimo paulo longiore, (in femina crassiore,) ovali acuto. Thorax latitudine non longior, lateribus valde rotundatus, 3-lineatus, interstitio breviter obsolete carinato, ante basin spicula parva armato. Elytra sanguinea obsolete parce punctulata, humeris truncatis, stria dorsali fere ad medium extensa. Variat totus rufus.

Mas antennarum art. 10^{mo} maximo, globoso, ultimo non crassiore, basi non dentato, fronte valde retuso, clypeo ad apicem acute tridentato, dente intermedia longiore, tibiis intermediis spinula parva apicali.

Femina, antennarum art. 10^{mo} præced. sesqui crassiore, clypeo apice simplici, fronte minus retuso, transversim paulo elevato.

14. *B. spretus*. *Niger, capite læviusculo vertice non cristato, sulco ambiente, thorace bilineato, elytris impunctatis, antennis pedibusque testaceis*. Long. .06 – .07.

Habitat ad vallem Nakutshi, Georgiæ: et in Vermont, Dom. C. B. Adams.

Statura præcedentis, niger paulo pubescens. Caput fere

læve, fronte inter antennis transversim elevata, leviterque retusa (multo magis in mare): vertice modice elevato, striola profunda ambiente, postice in fovea utrinque profunda desinente. Antennæ testaceæ, articuli 2-8 æqualibus, crassitie non longioribus, 9 paulo crassiore, fere transverso, 10^{mo} majore rotundato, 11^{mo} longiore, 2 præced. æquali (in femina crassiore) ovato, acuto. Thorax latitudine fere longior, lateribus rotundatus, striis solitis fere nullis, linea autem postica, foveis profundis; versus basin spicula minuta utrinque armatus. Elytra impunctata, stria dorsali ante medium abbreviata. Pedes testacei.

Mas, fronte magis retuso, (clypeo apice autem inarmato,) antennarum articulo 10^{mo} magno globoso, ultimo non crassiore, basi edentato.

B. 4.

15. *B. bistriatus*. *Castaneus, capite scabro, occipite bifoveato, vertice fere lævi, vix elevato, thorace bilineato, elytris parce subtiliter punctatis*. Long. .08.

Specimen unicum masculinum, in Pennsylvania, cum formica magna rufa, lectum. D. Haldeman.

Castaneus, parum pubescens. Caput scabrum, fronte lata fere plana, vertice vix elevato sublævi utrinque foveato, sulco solito vix distincto. Antennæ articulis 2-9 subæqualibus, crassitie haud longioribus, 10^{mo} duplo majore, globoso ultimo sesqui longiore, ovali, acuto, non dentato. Thorax longiusculus, lateribus rotundatus, foveis basalibus distinctis, lineis autem parum profundis, media oblitterata antice spinulis 2 minutissimis armatus. Elytra humeris vix truncatis, parce subtiliter punctata, stria dorsali brevi profunda. Abdomen obscurum. Tibiæ intermediæ spinula minuta apicali.

B. albionico (Aubé) proximus videtur, differt tamen capite scabro, verticeque non impresso.

16. *B. lineaticollis*. *Castaneus, capite scabro, occipite bifoveato, vertice vix elevato, thorace 3-lineato, elytris impunctatis*. Long. .08.

Aubé, Mon. Ps. 50, tab. 90, fig. 3: An. Ent. Fr. l. c. 83.
 Habitat cum formica magna rufa. Pennsylvania, Georgia.
 Castaneus, parum pubescens. Caput scabrum, fronte lata plana, vertice vix elevato, leviter cristato, utrinque foveato, sulco solito obsoleto. Antennæ articulis 3-9 subæqualibus, 10 crassiore, ultimo fere duplo longiore (in fem. crassiore) ovali, acuto. Thorax latitudine non longior, lateribus acute rotundatus, 3-lineatus, utrinque distinctius carinatus, ante basin spinulis 2-armatus: parce obsolete punctulatus. Elytra humeris paulo truncatis, impunctata, stria dorsali ante medium oblitterata. Abdomen obscurum.

Mas, antemarum articulo 10^{mo} magno globoso, ultimo non crassiore, edentato: tibiis intermediis calcare terminali brevi.

Species mihi ignotæ.

17. *B. albionicus*. “*Elongatus, nigro piceus capite majusculo, leviusculo, vertice tuberculato, tuberculo levi (lævi?) in summo fossula punctiformi impresso, thorace bisulcato. Long. 2½ mill.*”

Aubé, Mon. Psel. 49. tab. 90, 2.

An. Ent. Fr. l. c. 83.

Man. Trans. Mosc. 1843.

Habitat in California.

18. *B. Schaumii*. “*Elongatus, cinnamomeus, capite reticulato, vertice tuberculato, tuberculo leviter elevato, fossula punctiformi vix impresso; antennis gracilioribus, thorace 3-sulcato, elytris conspicue punctatis. Long. 2¼ mill.*”

Aubé, An. Ent. Fr. l. c. 84.

B. punctato proximus videtur.

RHEXIUS.

Antennæ distantes, ad frontis marginem insertæ, geniculatæ, clavatæ.

Palpi maxillares breves articulo ultimo ovato, acuto.

Abdomen subtiliter marginatum, articulis subæqualibus.

Tarsi unguiculo singulo.

Corpus subelongatum, convexum, valde pubescens, elytris parallelis, thorace vix sesqui latioribus. Caput breve pentagonum, basi truncatum; labrum apice rotundatum. Antennæ ad frontis marginem insertæ, basi distantes, breviusculæ, fractæ, articulo 1^{mo} elongato, 2^{ndo} crassitie 1^{mo} æquali, 3-8 minutis, transversis, approximatis, conjunctis 1^{mo} brevioribus, 9-10 crassioribus transversis, ultimo magno fere globoso inferne tamen oblique subtruncato. Palpi maxillares per-breves, articulo penultimo transverso, ultimo ovato acuto, præcedentibus conjunctis æquali. Mentum parvum submarginatum. Abdomen convexum, margine acuto, vix reflexo, articulis 1 et 2 subæqualibus; pedes mediocres, trochanteribus anterioribus prominulis, obtusis, tarsorum articulis 2 et 3 æqualibus.

Genus propter antennas fractas singulare, et a *φρησσω*, frango, dicatum.

1. *R. insculptus*. *Rufus, nitidus pubescens, fronte 3 foveolata, occipite excavato, thorace canaliculato, utrinque postice foveato, poneque medium breviter transversim impresso, elytris basi bifoveatis*. Long. 06.

Habitat Nov. Aureliani, a D. Schaum amice missus.

Rufo-testaceus, nitidus, valde pubescens. Caput transversum, ad frontem obsolete canaliculatum, 3-foveatumque, occipite mox ante collum profunde excavato, basi truncatum, angulis posticis rectis. Thorax transversus, capiti æqualis, basi paulo angustiore, truncatus lateribus angulatus, antice attenuatus, capiti collo brevi tenui conjunctus; utrinque versus basin fovea magna insculptus: canaliculatus, sulculo postico brevi transversim impressus. Elytra humeris rectis, parum rotundatis, basi elevato-marginata, utrinque bifoveata, stria dorsali nulla: abdomen elytris æquale, apice obtuse rotundata.

Sexus differentia latet.

EUPLECTUS Leach.

Antennæ 11-articulatæ, distantes, sub margine frontali insertæ rectæ.

Palpi maxillares mediocres, articulo ultimo ovali, acuto.

Mentum subquadratum.

Abdomen 6-articulatum, marginatum, articulo 5^{to} supra indistincto,¹ 4 primis æqualibus.

Tarsi unguiculo unico longiusculo.

Genus habitus variabilis; species aliæ elongatæ lineares, fere depressæ, (A) Staphylinos simulant, et optime ad oxytelos transitionem faciunt. Aliæ autem (B) Pselaphos genuinos, præcipue Batrisos revocant. Genus Aubeanum Trimum, licet habitu speciebus typicis convexione, articuloque antennarum ultimo maximo primo intuitu differre videtur, accuratius inspectum, non satis distinctum apparet; et cum speciebus subtus descriptis, seriem faciat, in qua formas quasi hybridas inter Euplectum et Trimum facile invenies.

Secundum corporis formam, thoracisque sculpturam, divisiones sequentes distinxi: —

A. Corpus elongatum, elytris depressis, antennarum articulis penultimis crassioribus.

a. Thorax canaliculatus, vel medio foveatus.

1. *Linearis*. Canalicula integra, medio dilatata, capite lævi.
2. *Confluens*. Canalicula integra, medio dilatata, capite thoraceque punctulatis.
3. *Interruptus*. Thorace fovea elongata capite lævi, vertice elevato.
4. *Difficile*. Thorace fovea elongata, capite lævi, vertice elevato, foveatoque.
5. *Pumilus*. Thorace fovea elongata, capite punctulato.

b. Thorax medio non canaliculatus.

6. *Arcuatus*. Capite antice arcuatim impresso, postice utrinque foveato.

B. Corpus convexiusculum.

a. Thorax subtiliter canaliculatus; antennæ articulis 9-10 crassioribus.

7. *Canaliculatus*. Capite utrinque bi-impresso, elytris confertim punctatis.
- b. Thorax non canaliculatus, foveis posticis linea conjunctis, antennarum articulo 11^{mo} maximo, globoso. TRIMUM Aubé.
8. *Globifer*. Capite arcuatim impresso, elytris stria dorsali brevi.
9. *Dubius*. Capite punctato, angulatim impresso, elytris stria dorsali.
10. *Parvulus*. Capite lævi minus profunde impresso, postice bifoveato.

A. — a.

1. *E. linearis*. *Testaceus, pubescens, capite sulcis profundis antice conjunctis, vertice foveato, thorace canaliculato, foveisque posticis sulco connexis.* Long. .06.

¹ The 5th and 6th dorsal segments are very closely articulated, so that the suture is only rarely to be seen; but the six ventral segments in both divisions of the genus can almost always be distinguished without difficulty.

Habitat in provinciis australibus. Louisiana (Schaum,) Georgia.

Elongatus, linearis, rufo-testaceus, nitidus pubescens. Caput marginibus elevatis, sulcis profundis antice conjunctis insculptum, vertice elevato, fovea parva impresso. Antennæ articulis 2-9 gradatim vix crassioribus, 10 transverso ultimo, plus duplo majore, apice obtuso. Thorax latitudine non brevior postice modice angustatus, foveis 3 pone medium magnis sulco transverso conjunctis, disco usque ad foveam profunde canaliculatus. Elytra basi marginata, parce obsolete punctata, stria dorsali ad medium abbreviata. Abdomen articulis 2 primis basi impressis.

2. *E. confluens*. *Testaceus, pubescens, capite thoraceque punctulatis, illo striis parallelis, antice transversim conjunctis, hoc a medio postice canaliculato, foveis posticis sulculo vix conjunctis.* Long. 06.

Specimen unicum ad Cambridge (Mass.) Maio sub cortice inveni.

Statura priore paulo depressior linearis testaceus. Caput punctatum, sulcis 2 profundis parallelis, sulculo transverso, antice connexis, vertice parum elevato, lævi, foveola minima basali notato. Antennis articulis 3-8 subæqualibus, 9 et 10 transversis, ultimo majore rotundato. Thorax subtiliter punctulatus, foveis 3 magnis pone medium sulco obsolete conjunctis, disco fovea magna oblonga cum fovea postica confluyente impresso. Elytra basi marginata, impunctata, stria dorsali tenui ad medium abbreviata. Abdomen articulis 2 primis basi vix conspicue impressis.

3. *E. interruptus*. *Testaceus, pubescens, capite sulcis profundis, antice conjunctis, vertice elevato, thorace foveis 3 posticis sulco conjunctis, alteraque ad medium oblonga discreta.* Long. .06.

Habitat ad Athenas Georgiæ. Specimina duo Maio lecta.

Statura *E. linearis* at paulo majore. Caput idem, vertice autem non foveato. Antennæ articulis 3-8, æqualibus 9-11,

gradatim crassioribus, 9 et 10 transversis, 11 majore rotundato. Thorax, latitudine vix brevior, foveis 3 magnis pone medium sulco conjunctis, alteraque discoidali oblonga, cum postica non confluyente. Elytra basi marginata impunctata, stria dorsali ad medium extendente. Abdomen articulis 2 primis basi impressis.

4. *E. difficilis*. *Testaceus, parum pubescens, capite sulcis 2 obliquis, antice transversim impresso, vertice elevato foveatoque, thorace fovea mediali discreta, posticis sulco conjunctis.* Long. .05.

Habitat ad Athenas Georgiæ. Specimen unicum vidi.

Præcedenti paulo angustior, paulo minus pubescens. Caput foveis posticis majoribus, sulcis obliquis minus profundis, fronte transversim impressa, vertice elevato foveatoque. Antennæ, sicut in *E. interrupto*. Thorax latitudine vix longior, fovea magna oblonga ad medium, cum postica fere confluyente, foveis posticis 3 sulco conjunctis. Elytra impunctata basi marginata, stria dorsali brevi, tenui. Abdomen basi vix impressum.

5. *E. pumilus*. *Testaceus, pubescens, capite punctulato, sulcis antice conjunctis minus profundis, vertice foveato, thorace foveis posticis sulco conjunctis, alteraque magna discoidali fere confluyente.* Long. .02.

Specimen unicum ad Charleston (S. C.) inveni.

Minutus, fere linearis. Caput punctulatum, fronte marginata, sulcis solitis minus profundis, antice angulatim conjunctis, vertice modice elevato foveatoque. Antennæ sicut in præcedente. Thorax latitudine non longior postice minus angustatus, foveis 3 posticis sulco transverso conjunctis, alteraque discoidali magna cum postica fere confluyente. Elytra thorace paulo latiora, obsolete punctata basi marginata, stria dorsali ad medium extensa. Abdomen basi non impressum.

A. — b.

6. *E. arcuatus*. *Testaceus, parum pubescens, capite profunde arcuatim impresso, vertice convexo, thorace foveis sulco conjunctis.* Long. .04.

Ad Athenas Georgiæ specimina duo inveni.

Elongatus, at minus depressus, testaceus paulo pubescens. Caput impressione arcuata profunda, postice in fovea utrinque desinente; vertice elevato. Antennæ articulis 3-8, æqualibus 9-10 transversis, hoc majore, 11 majore ovali, apice obtuso. Thorax latitudine non longior, foveis 3 posticis sulco profundo connexis. Elytra thorace vix latiora impunctata, stria dorsali profunda, fere ad medium extensa. Abdomen basi haud impressum.

B. — a.

7. *E. canaliculatus*. *Testaceus, pubescens, fronte transversim impressa, vertice elevato, foveatoque, thorace elytris punctulatis, illo subtiliter canaliculato, foveis 2 posticis sulculo conjunctis, Long. .04.*

Habitat Columbiae (S. C.) et ad Athenas Georgiæ.

Elongatus, convexiusculus, testaceus, pubescens. Caput fronte transversim impresso, postice utrinque foveatum, vertice elevato, foveatoque. Antennæ ♂ articulis 3-8 æqualibus 9-10 crassioribus transversis, ultimo longiore majore apice fere oblique truncata, subacuta. Thorax latitudine non brevior, postice magis angustatus, lateribus fere angulatus, subtilissime punctulatus, subtiliter canaliculatus, foveis 2 posticis sulculo conjunctis. Elytra thorace vix latiora, subtilissime punctulata, stria dorsali fere nulla. Abdomen basi haud impressum.

B. — b.

8. *E. globifer*. *Pallide testaceus, pubescens, capite arcuatim impresso, thorace foveis sulco angulato conjunctis, elytris stria dorsali, palporum articulo ultimo ovali. Long. .06.*

Specimen unicum ad vallem Nakutshi Georgiæ inventum.

Pallide testaceus, sat pubescens. Caput impunctatum, profunde arcuatim impressum. Antennæ articulis penultimis vix transversis, ultimo magno ovali, subacuto. Palpi articulo ultimo fusiformi. Thorax latitudine non longior, postice angustatus, lateribus rotundatus, foveis 2 magnis sulco profundo

angulato conjunctis. Elytra thorace latiora et longiora, stria basali profunda. Abdomen modice elongatum, haud impressum.

9. *E. dubius*. *Testaceus, parum pubescens, capite punctato, angulatim impresso, thorace foveis sulco fere recto conjunctis elytris basi foveatis, palporum articulo ultimo securiformi.* Long. .03.

Habitat cum priore.

Præcedente longior, et multo minor, testaceus, minus pubescens. Caput punctatum, minus profunde angulatim impressum, vertice vix foveato. Antennæ articulo ultimo maximo, apice rotundato. Palpi articulo ultimo securiformi. Thorax latitudine longior, foveis posticis sulco vix angulato conjunctis. Elytra thorace latiora, convexa, basi utrinque bifoveata. Abdomen modice elongatum, haud impressum.

10. *E. parvulus*. *Testaceus, pubescens. Capite profundius angulatim impresso, thorace foveis sulco fere recto conjunctis, elytris basi foveatis, palporum articulo ultimo securiformi.* Long. .03.

Specimen unicum Charlestoniæ, Carolinæ Australis, inveni. Statura omnino præcedentis, cui tamen differt capite impunctato, profundius impresso, elytrisque minus convexis.

FARONUS, Aubé.

Antennæ basi distantes, moniliformes, gradatim incrassatæ. Palpi maxillares breviusculi, 4-articulati, articulo 4^{to} ovali. Mentum quadratum.

Abdomen late marginatum apice acutum, 6-articulatum, articulis 4 primis æqualibus, 6^{to} minuto retractili.

Tarsi unguiculis 2 æqualibus, articulis 1 et 2 brevibus.

Ad genus Aubéanum, ut genera non leviter augerem, retuli insectum subtus descriptum, quod tamen notis plurimis specificis valde discrepat. Antennæ fere sicut in *Euplectis* insertæ sunt, sed magis distantes, et frontis margo supra insertionem tuberculum parvum format. In apice acuti abdominis artic-

ulo parvo 6^{to} retractili, ad Staphylinos Omalinos spectare videntur. Palpi maxillares capite breviores articulo 2^{ndo} sequenti duplo longiore, hoc parvo, 4^{to} iterum longiore, ovali.

1. E. Tolulæ. *Piceus, nitidus, capite antice foveato, thorace basi transversim excavato, elytris parce punctulatis, bistriatis, antennis pedibusque flavis.* Long. .09.

Specimen unicum ad Tolulæ cataractam Georgiæ inveni.

Corpus elongatum, elytris abdomineque depressis, Apocello sphaericolli subsimile, piceum, nitidum, pube depressa grisea parce vestitum. Caput triangulare, pone oculos subtus tuberculo minimo instructum; fronte utrinque super antennis paulo elevata, medio fovea magna oblonga impressa; vertice elevato, utrinque fovea parva. Antennæ flavæ, pilosæ, moniliformes, sensim parum incrassatæ. Thorax capite paulo latior, subglobosus, fovea parva postica utrinque in ipso latere impressus, medio ad basin profunde transversim excavatus. Elytra thorace paulo latiora, antrorsum angustata, basi recte truncata, depressa, parce punctulata striis 2 dorsalibus fere integris, interiore profundiore, sutura valde marginata. Abdomen depressum, late marginatum, apice acutum. Pedes minus elongati, flavi.

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ERRATA.

- Page 66, line 5th, for "this up" read "up this investigation."
 " 68, " 24th, for "many" read "some."
 " 70, " 13th, for "two genera" read "two didactyle genera."
 " 71, " 2nd, for "Osorus" read "Osorius."

ART. VIII. — *Dissection of Crocodilus lucius*. BY SAMUEL
 KNEELAND, Jr., M. D. Boston.

THE animal, of whose viscera the following notes were made, was the female of the *Crocodilus lucius*, L.; it died in Boston from the effects of an accident in January, 1848, at which time the dissections were made. Its length was seven feet, from the tip of the nose to the end of the tail. In many particulars the viscera differ from the descriptions of the books.

The *heart*, which was the most carefully examined, as its structure is somewhat a matter of dispute, was found to agree very nearly with the descriptions of Meckel and Bischoff.

The *tongue*, very little raised above the floor of the mouth, was of a whitish color, 8 inches long, 3 inches wide in the